

Title (en)

HUMAN IMMUNODEFICIENCY VIRUS ANTIGENS, VECTORS, COMPOSITIONS, AND METHODS OF USE THEREOF

Title (de)

ANTIGENE DES HUMANEN IMMUNDEFIZIENZVIRUS, VEKTOREN, ZUSAMMENSETZUNGEN UND VERFAHREN ZUR VERWENDUNG DAVON

Title (fr)

ANTIGÈNES, VECTEURS, COMPOSITIONS DU VIRUS DE L'IMMUNODÉFICIENCE HUMAINE ET LEURS PROCÉDÉS D'UTILISATION

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Abstract (en)

Synthetic HIV envelope proteins, vectors and compositions thereof, and methods for inducing protective immunity against human immunodeficiency virus (HIV) infection are described. Viral expression vectors encoding the synthetic HIV envelope proteins can be used in vaccines to provide improved protective immunity against HIV.

IPC 8 full level

C07K 14/16 (2006.01)

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Citation (applicant)

- WO 2010059732 A1 20100527 - BETH ISRAEL HOSPITAL [US], et al
- US 2012076812 A1 20120329 - BAROUCH DAN H [US], et al
- WO 2014107744 A1 20140710 - BETH ISRAEL HOSPITAL [US]
- US 6083716 A 20000704 - WILSON JAMES M [US], et al
- WO 2005071093 A2 20050804 - ANGELETTI P IST RICHERCHE BIO [IT], et al
- WO 2010086189 A2 20100805 - OKAIROS AG SWITZERLAND [CH], et al
- WO 2010085984 A1 20100805 - OKAIROS AG [CH], et al
- WO 03104467 A1 20031218 - CRUCELL HOLLAND BV [NL], et al
- WO 2007104792 A2 20070920 - CRUCELL HOLLAND BV [NL], et al
- WO 2012082918 A1 20120621 - US GOV HEALTH & HUMAN SERV [US], et al
- WO 2010042942 A2 20100415 - CHILDRENS MEDICAL CENTER [US], et al
- WO 2004001032 A2 20031231 - CRUCELL HOLLAND BV [NL], et al
- US 7270811 B2 20070918 - BOUT ABRAHAM [NL], et al
- WO 0070071 A1 20001123 - INTROGENE BV [NL], et al
- BAROUCH ET AL., NAT MED, vol. 16, 2010, pages 319 - 323
- BAROUCH ET AL., CELL, vol. 155, 2013, pages 1 - 9
- EDWARDS ET AL., J. VIROLOGY, vol. 76, 2002, pages 2683 - 2691
- SCHIERNLE ET AL., PNAS, vol. 94, 1997, pages 8640 - 8645
- ABRAHAMYAN ET AL., J VIROL, vol. 79, 2005, pages 106 - 115
- FARINA ET AL., J VIROL, vol. 75, 2001, pages 11603 - 13
- COHEN ET AL., J GEN VIROL, vol. 83, 2002, pages 151 - 55
- KOBINGER ET AL., VIROLOGY, vol. 346, 2006, pages 394 - 401
- TATSIS ET AL., MOLECULAR THERAPY, vol. 15, 2007, pages 608 - 17
- BANGARIMITTAL, VACCINE, vol. 24, 2006, pages 849 - 62
- LASAROERTL, MOL THER, vol. 17, 2009, pages 1333 - 39
- HAVENGA ET AL., J GEN VIROL, vol. 87, 2006, pages 2135 - 43
- ABBINK ET AL., VIROL, vol. 81, no. 9, 2007, pages 4654 - 63
- "GenBank", Database accession no. EF 153474
- ABBINK, J VIROL, vol. 81, no. 9, 2007, pages 4654 - 63
- HOGANSON ET AL., BIOPROCESSING J, vol. 1, 2002, pages 43 - 8
- "Remington's Pharmaceutical Sciences", 1980
- WALKER LMPHOGAT SKCHAN-HUI PYWAGNER DPHUNG PGOSS JL ET AL.: "Broad and potent neutralizing antibodies from an African donor reveal a new HIV-1 vaccine target", SCIENCE, vol. 326, 2009, pages 285 - 289, XP055264304, DOI: doi:10.1126/science.1178746
- HAYNES ET AL., N ENGL J MED., 2012
- BAROUCH ET AL., SCIENCE, vol. 349, 2015, pages 320 - 324
- MONTEFIORI DC, METHODS MOL BIOL, vol. 485, 2009, pages 395 - 405
- SARZOTTI-KELSOE MBAILER RTTURK ELIN CLBILSKA MGREENE KM ET AL.: "Optimization and validation of the TZM-bl assay for standardized assessments of neutralizing antibodies against HIV-1", J IMMUNOL METHODS, vol. 409, 2014, pages 131 - 146, XP029047122, DOI: doi:10.1016/j.jim.2013.11.022
- VOGELS ET AL., J VIROL, vol. 77, no. 15, 2003, pages 8263 - 71
- HAYNES BFGILBERT PBMCEL RATH MJZOLLA-PAZNER STOMARAS GDALAM SM ET AL.: "Immune-correlates analysis of an HIV-1 vaccine efficacy trial", NENGL JMED, vol. 366, 2012, pages 1275 - 1286, XP055197181, DOI: doi:10.1056/NEJMoa1113425
- MONTEFIORI DC: "Measuring HIV neutralization in a luciferase reporter gene assay", METHODS MOL BIO, vol. 485, 2009, pages 395 - 405

Citation (search report)

- [A] WO 2014107744 A1 20140710 - BETH ISRAEL HOSPITAL [US]
- [A] WO 2010059732 A1 20100527 - BETH ISRAEL HOSPITAL [US], et al
- [A] "RecName: Full=Endogenous retrovirus group K member 9 Env polyprotein {ECO:0000256|SAAS:SAAS00159347}; AltName: Full=Endogenous retrovirus group K member 113 Env polyprotein {ECO:0000256|SAAS:SAAS00159454}; AltName: Full=Endogenous retrovirus group K member 13-1 Env polyprotein {ECO:0000256|SAAS:SAAS", UNIPROT, 1 March 2005 (2005-03-01), XP002757477
- [A] COMPANS R W ET AL: "Recombinant protein gp41 heterologous transmembrane region, SEQ ID 1", GENESEQ,, 15 January 2009 (2009-01-15), XP002757478
- [A] MARASCO W A: "Transmembrane domain peptide, SEQ ID 14", GENESEQ,, 26 January 2006 (2006-01-26), XP002757479
- [A] "GCN4 fusion linker peptide, SEQ ID NO 3", GENESEQ,, 11 January 2007 (2007-01-11), XP002757480

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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US 201615380123 A 20161215; AU 2016369326 A 20161215; AU 2019203468 A 20190517; BR 112018011122 A 20161215; CA 3008542 A 20161215; CN 201680073839 A 20161215; CN 202210312432 A 20161215; CY 191101197 T 20191113; CY 211100901 T 20211019; DK 16822410 T 20161215; DK 19186284 T 20161215; EA 201891415 A 20161215; EP 16822410 A 20161215; EP 19186284 A 20161215; EP 2016081159 W 20161215; EP 21185351 A 20161215; ES 16822410 T 20161215; ES 19186284 T 20161215; HR P20191902 T 20191021; HR P20211566 T 20161215; HU E16822410 A 20161215; HU E19186284 A 20161215; IL 25994218 A 20180611; JP 2018531537 A 20161215; JP 2019071336 A 20190403; KR 20187016460 A 20161215; LT 16822410 T 20161215; LT 19186284 T 20161215; MA 44059 A 20161215; MA 47522 A 20161215; MA 55825 A 20161215; MD E20181009 T 20161215; MD E20200025 T 20161215; ME P2019304 A 20161215; MX 2018007198 A 20161215; MX 2021006931 A 20180613; PH 12018501047 A 20180516; PL 16822410 T 20161215; PL 19186284 T 20161215; PT 16822410 T 20161215; RS P20191399 A 20161215; RS P20211171 A 20161215; SG 10202109457R A 20161215; SG 11201804411T A 20161215; SI 201630480 T 20161215; SI 201631333 T 20161215; TW 105141650 A 20161215; TW 109138473 A 20161215; US 201916440463 A 20190613; US 202117190569 A 20210303; ZA 201803978 A 20180614